Atty Docket No.: SN-US035079 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of:	:	
	:	Appeal No.: _____
Shinpei OKAJIMA	:	
	:	Group Art Unit: 3617
Serial No.: 10/626,731	:	
	:	Examiner: Jason R. Bellinger
Filed: July 25, 2003	:	
	:	
For: BICYCLE RIM	:	

APPEAL BRIEF

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APPEAL BRIEF

Commissioner of Patents
United States Patent and Trademark Office
Washington, D.C. 20231

Sir:

For the appeal to the Board of Patent Appeals and Interferences from the decision dated June 24, 2005 of the Examiner finally rejecting claims 1-9, 11-32, 34 and 35, Applicant-Appellant submits the following brief in accordance with 37 C.F.R. §41.37.

In view of the following analysis of claims 1-9, 11-32, 34 and 35, Appellant believes that the unique arrangements of these claims are not disclosed or suggested in the references cited in the Office Action, either alone, or in combination. Thus, Appellant respectfully requests that the rejections of claims 1-9, 11-32, 34 and 35 be reversed, and that claims 1-9, 11-32, 34 and 35 be allowed.

If there are any questions regarding this Brief, please feel free to contact the undersigned.

1. Real Party In Interest

Shimano, Inc. is the owner in the above-identified patent application. Thus, the real party in interest is Shimano, Inc.

2. Related Appeals and Interferences

Appellant and Appellant's legal representatives are not aware of any appeals or interferences relating to the above-identified patent application.

3. Status of Claims

Claims 1-35 are presently pending in this application. Claims 1-9, 11-32, 34 and 35 stand rejected. Claims 10 and 33 are currently withdrawn.

The Final Office Action objected to claim 35 for an improper identifier. Appellant believes that the After Final Amendment of September 7, 2005 correcting the status identifier was entered since the Advisory Action of September 30, 2005, in listing the status of the claims, did not list claim 35 as objected to. Appellant believes the entered claims are appropriate for appeal in that there is no outstanding objection to the body of any claim.

Claims 1-9, 11-32, 34 and 35 stand finally rejected in view of prior art. Specifically, claims 1-9, 11, 13-31, 34 and 35 stand rejected under §103(a) as being unpatentable over U.S. Patent No. 2,937,905 to Altenburger in view of U.S. Patent No. 657,435 to Minshall. Claims 12 and 32 stand rejected under §103(a) as being unpatentable over the Altenburger patent in view of the Minshall patent and in further view of U.S. Patent No. 6,443,533 to Lacombe et al. Thus, all of the rejected claims 1-9, 11-32, 34 and 35 are on appeal.

4. Status of Amendments

An amendment under 37 C.F.R. §1.116 was filed in response to the final rejection on September 7, 2005. This September 7, 2005 Amendment is believed to have been entered. The September 7, 2005 Amendment only changed the status identifier of claim 35 from "new" to "previously presented". The claims were not amended in the amendment of September 7, 2005. Therefore, all claim amendments were entered before the final rejection and considered by Examiner Bellinger in the final rejection.

5. Summary of Claimed Subject Matter

The presently claimed invention is directed to a bicycle rim 12 that has a plurality of reinforcement members 14. The bicycle rim 12 of the present invention has an outer annular portion 24 and an inner annular portion 26. The outer annular portion 24 is a tire attachment portion and the inner annular portion 26 is a spoke attachment portion. A plurality of spokes 16 is attached at a hub 20 and extends to the inner annular portion 26 of the bicycle rim 12. The spokes 16 are coupled to the inner annular portion 26 of the bicycle rim 12 in a plurality of attachment openings 28a and 28b at circumferentially spaced locations. The reinforcement members 14 are fixedly attached to the bicycle rim 12 at the attachment openings 28a and 28b and reinforce the spokes 14 at the inner annular portion 26 of the bicycle rim 12. The claimed invention is discussed on pages 2-20 of the specification and illustrated in Figures 1-20.

The bicycle rim of independent claim 1 basically comprises an annular tire attachment portion 24, an annular spoke attachment portion 26 and a plurality of separate reinforcement members 14. The annular tire attachment portion 24 is adapted to have a tire mounted on the annular tire attachment portion 24. The annular spoke attachment portion 26 is fixedly coupled with the tire attachment portion 24 to form an annular hollow area A. The annular spoke attachment portion 26 includes a plurality of circumferentially spaced spoke attachment openings 28a and 28b with each of the spoke attachment openings 28a and 28b having a central axis. The separate reinforcement members 14 are fixedly coupled to an exterior surface 48 of the spoke attachment portion 26 at the attachment openings 28a and 28b to effectively increase the thickness of the spoke attachment portion 26 of the rim 12 at the attachment openings 28a and 28b. Each of the reinforcement members 14 is located entirely exteriorly of the spoke attachment portion 26 and has a through opening 54 that is aligned with one of the attachment openings 28a and 28b. The through opening 54 has an

inner diameter that is configured and arranged to allow a spoke 16 to be adjustably and releasably coupled thereto. See, Figures 2(a) and 2(b).

The reinforcement members 14 of independent claim 1 are further described as including a projecting portion 52 and a rim-facing surface 56a. The projecting portion 52 extends inwardly from one of the spoke attachment openings 28a and 28b in a radial direction of the rim 12 to an end surface 58a spaced radially inwardly of the exterior surface 48 of the spoke attachment portion 26. See, paragraph [0067] on page 12 of the specification. The rim-facing surface 56a overlies an attachment area of the exterior surface 48 of the spoke attachment portion 26 that surrounds a corresponding one of the spoke attachment openings 28a and 28b. See, paragraph [0064] on page 11 of the specification and Figure 2(a). The attachment areas of the exterior surface 48 of the spoke attachment portion 26 are free of any through openings except for the spoke attachment openings 28a and 28b. See, Figures 1-4.

Independent claim 23 recites a method of making a bicycle rim 12. The method of making a bicycle rim 12 includes forming an annular rim 12 that has an annular tire attachment portion 24 and an annular spoke attachment portion 26 fixedly coupled with the annular tire attachment portion 24 to form an annular hollow area A. The method of making a bicycle rim 12 further includes fixedly coupling a plurality of reinforcement members 14 to an exterior surface 48 of the spoke attachment portion 26 such that the reinforcement members 14 are located entirely exteriorly of the spoke attachment portion 26 in a circumferentially spaced arrangement to effectively increase the thickness of the spoke attachment portion 26. The method of making a bicycle rim 12 also requires forming a plurality of attachment openings 28a and 28b with one of the attachment openings 28a and 28b extending through one of the reinforcement members 14 and through the spoke attachment portion 26 of the rim 12. Each of the attachment openings 28a and 28b have an inner diameter that is configured and arranged to allow a spoke 16 to be adjustably and

releasably coupled thereto. Each of the reinforcement members 14 in independent claim 23 has a particular arrangement that is the same as set forth in independent claim 1.

Independent claim 34 includes an annular tire attachment portion 24 and an annular spoke attachment portion 26 that is the same as set forth in independent claim 1. Independent claim 34 further includes a plurality of separate reinforcement members 14. The separate reinforcement members 14 are fixedly coupled to an exterior surface 48 of the spoke attachment portion 26 at the attachment openings 28a and 28b to effectively increase the thickness of the spoke attachment portion 26 of the rim 12 at the attachment openings 28a and 28b. Each of the reinforcement members 14 is located entirely exteriorly of the spoke attachment portion 26 and has a through opening 54 that is aligned with one of the attachment openings 28a and 28b. The through opening 54 has an inner diameter that is configured and arranged to allow a spoke 16 to be adjustably and releasably coupled thereto. See, Figures 2(a)-3(b).

The reinforcement members 14 of independent claim 34 are further described as having a base portion 50 with a first thickness and a central projecting portion 52 extending radially inwardly from the base portion 50. See, paragraphs [0066] and [0067] on page 12 of the specification. The projecting portion 52 has a second thickness that is at least twice the first thickness. See, Figures 2(a) and 2(b). The through opening 54 of each reinforcement member 14 is formed in the projecting portion 52. The spoke attachment openings 28a and 28b are formed in an inner annular section 42 of the spoke attachment portion 26 that forms an inner radial periphery of the rim 12 such that the central axes of the spoke attachment openings 28a and 28b extend in a substantially radial direction of the rim 12. See, paragraph [0054] on page 9 of the specification and Figures 2(a) and 2(b).

6. Grounds of Rejection to be Reviewed on Appeal

The grounds of rejection to be reviewed on appeal is presented as follows:

(A) Whether claims 1-9, 11, 13-31, 34 and 35 are unpatentable under 35 U.S.C. §103(a) over U.S. Patent No. 2,937,905 to Altenburger in view of U.S. Patent No. 657,435 to Minshall.

(B) Whether claims 12 and 32 are unpatentable under 35 U.S.C. §103(a) over the Altenburger patent in view of the Minshall patent and in further view of U.S. Patent No. 6,443,533 to Lacombe et al.

7. Arguments

The claims on appeal are not rendered obvious by U.S. Patent No. 2,937,905 to Altenburger (hereinafter "Altenburger patent") in view of U.S. Patent No. 657,435 to Minshall (hereinafter "Minshall patent") and further in view of U.S. Patent No. 6,443,533 to Lacombe et al (hereinafter "Lacombe patent"), whether taken singularly or in combination.

BRIEF SUMMARY OF ARGUMENTS

- The combination of the Altenburger patent and the Minshall patent would render the rim of the Altenburger patent inoperable for its intended purpose. For this reason, there is no suggestion or motivation to make the proposed modification.
- The Altenburger patent and the Minshall patent are directed to completely different types of wheels and disclose proposed solutions to completely different problems. For this reason, one of ordinary skill in the art would not be motivated to combine a hollow, ***metal rim*** having ***tension spokes*** of the Altenburger patent, with a solid, ***wooden*** felly with a plate D for protecting the wood from the ***compression spokes*** C as disclosed in the Minshall patent.
- The Altenburger patent and the Minshall patent do not disclose reinforcement members ***fixedly coupled to an exterior surface*** of the rim. Thus, this rejection fails to establish a *prima facie* case.

The foregoing arguments are explained in more detail below.

A. Rejection under 35 U.S.C. §103(a) over the Altenburger patent in view of the Minshall patent

Appellant respectfully asserts that the Altenburger patent and the Minshall patent, whether taken singularly or in combination, fail to disclose or suggest the bicycle rim as recited in independent claims 1, 23 and 34. Therefore, Appellant believes claims 1-9, 11, 13-31, 34 and 35 are patentable over the Altenburger patent in view of the Minshall patent.

The Altenburger patent discloses a rim with an outer bottom 12 and an inner bottom 13 that form an annular hollow space 14. The two bottoms are arranged between flanges 11. The Final Office Action refers to Figures 6-10 of the Altenburger patent in the rejection of claims 1-9, 11-32, 34 and 35. Figures 6-10 illustrate an embodiment with anchor elements 32 on the inner bottom 13 of the rim. As illustrated in Figure 9, the anchor elements 32 are rectangular in shape, and are ***designed to be removable*** so that the spoke nipples 31 can be replaced without removing the tire (See, Column 3, lines 58-74). The inner bottom 13 of the rim has a plurality of rectangular apertures 33 with one of the anchor elements 32 being received within each of the rectangular apertures 33 of the rim. The spoke nipples 31 are supported on the anchor elements 32 and are attached to one of the tension spokes 30 to the rim.

The Minshall patent discloses a ***solid felly*** A with a uniform cross-section having a thin, solid tire B mounted to an outer surface of the felly A and ***compression spokes*** C mounted to an inner surface of the felly A. While not explicitly stated, it is generally known that a ***felly is a wooden rim***. See, Evidence Appendix. In the Minshall patent, a metal plate D is placed between an outer diameter of the compression spoke C and the felly A, as shown in Figures 1 and 2, for protecting the wood from the ***compression spokes*** C.

1. **Independent Claims 1, 23 and 34**

In the September 30, 2005 Advisory Action, the Examiner basically asserts that

(1) Element "D" of Minshall serves to reinforce the felly from forces acting on the spokes. This reinforcing element would function to reinforce the spoke of ANY rim, regardless of material or structure.

(2) Furthermore, the element "D" of Minshall is an equivalent reinforcing means to element 32 of Altenburger.

(3) The element "D" of Minshall could be welded to the spoke attachment portion of Altenburger, thus providing equivalent and permanently secured reinforcement to that area of the rim.

Appellant respectfully asserts that these statements are ***not supported*** by the disclosures of the Altenburger patent and the Minshall patent. In fact, as explained below, the anchor elements 32 of the Altenburger patent and the metal plate D of the Minshall patent are used ***two entirely different purposes*** and the proposed combination of the Office Action would render the wheel of the Altenburger patent ***inoperable for its intended purpose***. In addition, as explained below, the metal plates D of the Minshall patent is ***not an equivalent reinforcing means*** to the anchor elements 32 of the Altenburger patent because, among other things, the metal plates D of the Minshall patent are used with a ***wooden rim*** having ***compression*** spokes and the anchor elements 32 of the Altenburger patent are used with a ***metal rim*** having ***tension*** spokes. Finally, as explained below, one skilled in the art would ***not weld*** the metal plate D of the Minshall patent to the rim of the Altenburger patent because neither patent teaches welding and this would render the wheel of the Altenburger patent ***inoperable for its intended purpose***.

(a) The modification of the rim of the Altenburger patent with the plate of the Minshall patent would render the rim of the Altenburger patent inoperable for its intended purpose.

The intent of the invention of the Altenburger patent is to use ***removable*** anchor elements 32 to prevent removal of the tire 10 when replacing the spoke nipples 31 and to avoid holes in the potion 12 of the ***tubless tire rim***. See column 4, lines 15-74. The intent of the invention of the Minshall patent, on the other hand, is to use the metal plates D to protect the ***wood*** of the felly A from the ***compression spokes*** C. Thus, it is unknown why the metal plates D would be used with the ***tubless tire rim*** of the Altenburger patent. However, the Examiner proposes in his Office Action to ***weld*** the metal plate D of the Minshall patent onto the inner bottom 13 of the rim of the Altenburger patent.

"If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." MPEP §2143.01 V. citing *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). If the metal plate D of the Minshall patent were ***fixed or welded*** onto the bottom of the rim of the Altenburger patent (either using the anchor element 32 or replacing the anchor element 32), it would render the rim of the Altenburger patent inoperable for its intended purpose. In other words, the spoke nipples 31 could not be removed from the rim as intended by the Altenburger patent if the metal plates D of the Minshall patent were ***fixed or welded*** onto the bottom of the rim of the Altenburger patent.

It is unclear from the Office action if the combination of the Altenburger patent and the Minshall patent is intended to result in the metal plates D of the Minshall patent replacing the anchor elements 32 of the Altenburger patent, or them being used together. In either case, the resulting hypothetical rim would be inoperable for its intended purpose as disclosed in the Altenburger patent. For example, if the Altenburger patent and the Minshall patent were

some how combine, then Appellant believes the resulting hypothetical rim would most likely look something like one of the two following figures:

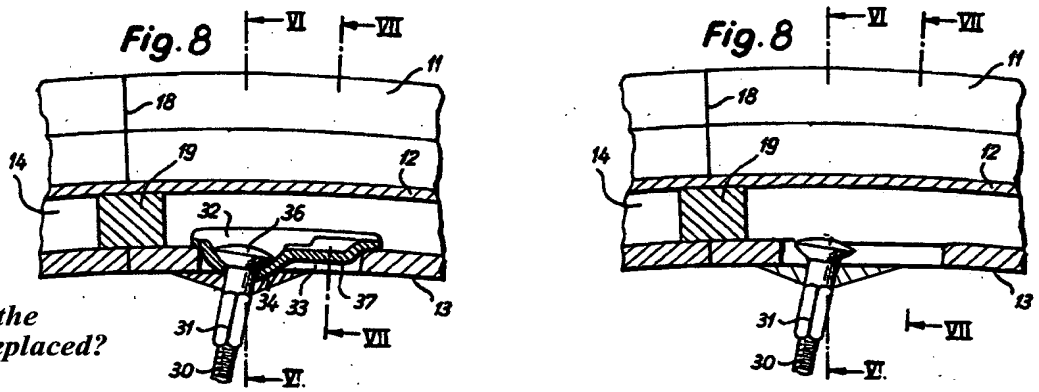

Figure 8 of the Altenburger patent modified to include metal plate D of the Minshall patent

Basically, the hypothetical rims, above, are combinations of the plate D of the Minshall patent as illustrated in Figure 2 and the rim of the Altenburger patent as illustrated in Figure 8. As seen by the above hypothetical rims, if the metal plates D are welded to the rim of the Altenburger patent, then the welding of the metal plate D to the rim prevents a rider from removing the spoke nipple 31 through the aperture 33 as intended by the Altenburger patent. Accordingly, one of ordinary skill in the art ***would not be motivated to weld or otherwise fix the plate D*** of the Minshall patent to the bottom of the rim of the Altenburger patent since the modification would render the rim of the Altenburger patent unsatisfactory for its intended purpose. Indeed, in order to change the spoke nipple 31, a rider would have to do exactly what this embodiment of the Altenburger patent intends to avoid. That is, additional holes would need to be added to the outer bottom 12, which makes the rim less suitable for a ***tubless tire rim*** and a rider would have to change the spoke nipple 31 by removing the rubber tire 10.

(b) The Altenburger patent and the Minshall patent are directed to completely different types of wheels and disclose proposed solutions to completely different problems.

The Altenburger patent discloses a ***metal tubless tire rim*** having the hollow space 14 with ***removable*** anchor elements 32 to prevent removal of the tire 10 when replacing the spoke nipples 31. The hollow space 14 is utilized to attach ***tension spokes*** 30. Conversely, the Minshall patent discloses a solid felly A with ***compression spokes*** C. As shown in the Evidence Appendix, the common definition of "felly" is a ***wooden*** rim. The Minshall patent further discloses that the plate D prevents the ***compression spoke*** C from crushing and splitting the ***wooden*** felly during compression. Thus, the Altenburger patent and the Minshall patent are directed to completely different types of wheels and disclose proposed solutions to completely different problems. For this reason, one of ordinary skill in the art would not be motivated to combine a hollow, ***metal rim*** having ***tension spokes*** of the Altenburger patent, with a solid, ***wooden*** felly with a plate D for protecting the wood from the ***compression spokes*** C as disclosed in the Minshall patent.

"The mere fact that references <u>can</u> be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." MPEP §2143.01 citing *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) (Emphasis MPEP's own). Clearly, this motivation is lacking in the prior art of record.

In particular, Appellant respectfully submits that one of ordinary skill in the art would ***not combine*** the Altenburger patent, which discloses a hollow, ***metal rim*** having ***tension spokes***, with the Minshall patent, which is directed to a solid, ***wooden*** felly with a plate D for protecting the wood from the ***compression spokes*** C. There is no suggestion in the Minshall patent or the Altenburger patent to combine a metal plate intended for ***compression spokes*** with a device that utilizes ***tension spokes***. Indeed, there is no need for the hollow, ***metal rim***

of the Altenburger patent to be protected from crushing or splitting since ***tension spokes*** are used in the Altenburger patent.

The Minshall patent states that the plate D is "so shaped as to receive and distribute the thrust on the shoulder." See, page 1 of the Minshall patent at the bottom of column 1 and the top of column 2. Thus, the plate D of the Minshall patent protects the rim by distributing the thrust from the ***compression spokes***. One of ordinary skill in the art would not be motivated to apply the plate D that distributes thrust from a ***compression spoke*** to the ***tension spoke*** of the Altenburger patent since there is no thrust from the spoke to distribute.

(c) The Altenburger patent and the Minshall patent do not disclose reinforcement members fixedly coupled to an exterior surface of the rim.

Independent claims 1, 23 and 34 require reinforcement members that are ***fixedly coupled*** to an ***exterior*** surface of the spoke attachment portion. See, lines 7 and 8 of claims 1 and 34, and lines 5 and 6 of claim 23. As stated at column 3, lines 61-74 of the Altenburger patent, ***the anchor elements 32 are removable*** from the rim. Therefore, the anchor element 32 cannot be considered ***fixedly coupled*** to an ***exterior*** surface of the spoke attachment portion. Furthermore, Figures 6-10 of the Altenburger patent illustrate that the anchor element 32 is attached to an ***interior*** surface of the rim. Nowhere in the Altenburger patent is it disclosed to ***fixedly couple*** a reinforcement member to an ***exterior*** surface of a spoke attachment portion.

Likewise, the Minshall patent does not disclose reinforcement members that are ***fixedly coupled*** to an ***exterior*** surface of a spoke attachment portion. Figures 1 and 2 of the Minshall patent illustrate the plate D interposed between a shoulder of the spoke C and the felly A. However, nowhere in the Minshall patent is it disclosed to ***fixedly couple*** the plate D to the felly A. As can be seen in Figure 2 of the Minshall patent, the spoke socket *a* allows

radial movement of the spoke C when the felly is rotated on the ground during normal use. Thus, radial movement of the spoke C away from the felly A will allow the plate D to fall away from the felly A since it is not ***fixedly coupled to the exterior*** surface of the felly A.

Thus, even if these two completely different wheels of these two patents were some how combine to create a hypothetical wheel, this rejection still fails to establish a *prima facie* case of obviousness.

2. Dependent Claims 5-8, 26 and 27

In addition to requiring fixedly coupled reinforcement members, the dependent claims further define fixedly coupling as welding or brazing. Specifically, dependent claims 5, 7, 26 and 27 require that each of the reinforcement members be welded or brazed to the spoke attachment portion. Dependent claims 6 and 8 further require that each of the reinforcement members be welded or brazed around an outer periphery of the reinforcement member. Welding and brazing ***are not taught*** in either the Altenburger patent or the Minshall patent. Indeed, welding or brazing would render the device of the Altenburger patent inoperable for its intended purpose in that the anchor element 32 could not be removed. Moreover, the ***metal*** plate D of the Minshall patent cannot be welded or brazed to the ***wooden*** felly A.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." MPEP §2143.03 citing *In re Royka*, 940 F.2d 981, 180 USPQ 580 (CCPA 1974). Appellant respectfully asserts that since fixedly coupling by welding or brazing is not taught or suggested by the Altenburger patent or the Minshall patent, a *prima facie* case of obviousness has not been established for claims 5-8, 26 and 27 by the combination of these two patents.

3. Dependent Claim 24

Regarding dependent claim 24, Appellant respectfully asserts that the Altenburger patent, the Minshall patent and the Lacombe patent, whether taken singularly or in combination, fail to disclose or suggest the method of manufacturing a bicycle rim as recited in dependent claim 24. Claim 24 specifically recites that "the forming of the attachment openings ***occurs after fixedly coupling the reinforcement members*** to the spoke attachment portion." The Examiner states in the June 24, 2005 Office Action (page 6) that

> Altenburger as modified by Minshall also does not specify that the [spoke] attachment openings be formed after the reinforcement members are fixedly attached to the spoke attachment portion. However, one of ordinary skill in the art at the time of the invention would have found it obvious to form the attachment openings after the reinforcement members have been fixedly attached to the spoke attachment portion in order to maintain alignment of the attachment openings between the rim and the reinforcement members, thus reducing and/or eliminating any lateral stress on the spokes ends secured within the rim and the reinforcement members.

This alleged motivation is completely unsupported by the prior art as admitted by the Examiner himself. The motivation has been pulled out of thin air and is not supported by any evidence of record. In fact, this step of claim 24 is completely lacking in the prior art of record. "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." MPEP §2143.03 citing *In re Royka*, 940 F.2d 981, 180 USPQ 580 (CCPA 1974).

The mere fact that references <u>can</u> be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." MPEP §2143.01 citing *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) (Emphasis MPEP's own). Clearly, this motivation for performing the step of claim 24 is lacking in the prior art of record. Thus, Appellant respectfully asserts that a *prima facie* case of obviousness has not been established for claim 24 by the combination of these two patents.

4. Dependent Claims 2-4, 9, 11, 13-22, 25, 28, 29, 31, 33 and 35

Moreover, Appellant believes that dependent claims 2-4, 9, 11, 13-22, 25, 28, 29, 31, 33 and 35 are also allowable over the prior art of record in that they depend from one of independent claims 1, 23 and 34, and therefore are allowable for the reasons stated above. Also, the dependent claims are further allowable because they include additional limitations. Thus, Appellant believes that since the prior art of record does not disclose or suggest the invention as set forth in independent claims 1, 23 and 34, the prior art of record also fails to disclose or suggest the inventions as set forth in the dependent claims.

B. Rejection under 35 U.S.C. §103(a) over the Altenburger patent in view of the Minshall patent and further in view of the Lacombe patent

1. Dependent Claims 12 and 32

Appellant respectfully asserts that the Altenburger patent, the Minshall patent and the Lacombe patent, whether taken singularly or in combination, fail to disclose or suggest the bicycle rim as recited in dependent claims 12 and 32. Therefore, Appellant believes claims 12 and 32 are patentable over the Altenburger patent in view of the Minshall patent and further in view of the Lacombe patent.

The Lacombe patent discloses a rim 2 with an upper bridge 10 and a lower bridge 11. The lower bridge 11 has an opening 18 for an inflation valve 6. Figure 1 of the Lacombe patent shows spokes 4 directly attached to the rim 2. However, the Lacombe patent does not disclose reinforcement members fixedly coupled to a spoke attachment portion.

Appellant respectfully submits that the Lacombe patent does not remedy the deficiencies of the Altenburger patent and the Minshall patent in that the claimed reinforcement members are not disclosed in the Lacombe patent. Thus, any hypothetical rim resulting from the teachings of these references would not include these claim limitations.

"If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP §2143.03 citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Thus, Appellant respectfully asserts that claims 12 and 32 are patentable over the Altenburger patent, the Minshall patent and the Lacombe patent since the prior art of record does not disclose or suggest the invention as set forth in independent claims 1, 23 and 34, as detailed above.

Moreover, Appellant believes that dependent claims 12 and 32 are also allowable over the prior art of record in that they depend from independent claims 1 and 23, respectively,

and therefore are allowable for the reasons stated above. Also, the dependent claims are further allowable because they include additional limitations. Thus, Appellant believes that since the prior art of record does not disclose or suggest the invention as set forth in independent claims 1 and 23, the prior art of record also fails to disclose or suggest the inventions as set forth in the dependent claims.

8. Conclusion

In view of the above analysis of claims 1-9, 11-32, 34 and 35, Appellant believes that the unique arrangements of these claims are not disclosed or suggested in the references cited in the Office Action, either alone, or in combination. Thus, Appellant respectfully requests that the rejections of claims 1-9, 11-32, 34 and 35 be reversed, and that claims 1-9, 11-32, 34 and 35 be allowed. If there are any questions regarding this Brief, please feel free to contact the undersigned.

Respectfully submitted,

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A- Claims Appendix

1. (Previously Presented) A bicycle rim comprising:

an annular tire attachment portion adapted to have a tire mounted thereon;

an annular spoke attachment portion fixedly coupled with said tire attachment portion to form an annular hollow area, said spoke attachment portion including a plurality of circumferentially spaced spoke attachment openings with each of said spoke attachment openings having a central axis; and

a plurality of separate reinforcement members fixedly coupled to an exterior surface of said spoke attachment portion at said attachment openings to effectively increase the thickness of said spoke attachment portion of said rim at said attachment openings, each of said reinforcement members being located entirely exteriorly of said spoke attachment portion and having a through opening that is aligned with one of said attachment openings, said through opening having an inner diameter that is configured and arranged to allow a spoke to be adjustably and releasably coupled thereto,

each of said reinforcement members including:

a projecting portion extending inwardly from one of said spoke attachment openings in a radial direction of the rim to an end surface spaced radially inwardly of said exterior surface of said spoke attachment portion, and

a rim-facing surface overlying an attachment area of said exterior surface of said spoke attachment portion that surrounds a corresponding one of said spoke attachment openings,

said attachment areas of said exterior surface of said spoke attachment portion being free of any through openings except for said spoke attachment openings.

2. (Previously Presented) The bicycle rim according to claim 1, wherein each of said through openings is substantially coincident with a respective one of said spoke attachment openings as viewed along said central axes of said spoke attachment openings.

3. (Previously Presented) The bicycle rim according to claim 1, wherein each of said reinforcement members has a maximum overlapping dimension that overlaps said annular spoke attachment portion that is at least as large as a maximum transverse dimension of a respective one of said spoke attachment openings as measured from an outer peripheral edge of said reinforcement member to said respective one of said spoke attachment openings.

4. (Previously Presented) The bicycle rim according to claim 1, wherein said rim-facing surface corresponds to a contour of said exterior surface of said spoke attachment portion.

5. (Original) The bicycle rim according to claim 1, wherein each of said reinforcement members is welded to said spoke attachment portion.

6. (Previously Presented) The bicycle rim according to claim 5, wherein each of said reinforcement members is welded around an outer periphery thereof that is spaced from a respective one of said spoke attachment openings.

7. (Original) The bicycle rim according to claim 1, wherein each of said reinforcement members is brazed onto said spoke attachment portion.

8. (Previously Presented) The bicycle rim according to claim 7, wherein each of said reinforcement members is brazed around an outer periphery thereof that is spaced from a respective one of said spoke attachment openings.

9. (Previously Presented) The bicycle rim according to claim 1 ,wherein each of said spoke attachment openings of said spoke attachment portion is threaded, and said through opening of each of said reinforcement members is threaded.

10. (Withdrawn) The bicycle rim according to claim 1, wherein each of said attachment openings of said spoke attachment portion is unthreaded, and said through opening of each of said reinforcement members is unthreaded.

11. (Previously Presented) The bicycle rim according to claim 1, wherein said spoke attachment portion includes a pair of annular side sections extending radially outwardly from an inner annular section to form a first substantially U-shaped cross-sectional shape as viewed in a transverse cross-sectional direction; and

said tire attachment portion includes a pair of annular tire support sections and an annular bridge section that extends between said tire support sections to form a second substantially U-shaped cross-sectional shape as viewed in said transverse cross-sectional direction in order to form said annular hollow area together with said spoke attachment portion.

12. (Original) The bicycle rim according to claim 11, wherein

said annular bridge section is free of openings except for a single valve aperture formed therein; and

said spoke attachment portion includes a valve opening aligned with said single valve aperture of said annular bridge section.

13. (Original) The bicycle rim according to claim 11, wherein

said annular side sections and said inner annular section of said spoke attachment portion, and said annular tire support sections and said annular bridge section of said tire attachment portion are integrally formed together as a one-piece, unitary member that is separate from said reinforcement members.

14. (Previously Presented) The bicycle rim according to claim 1, wherein

said spoke attachment openings are formed in an inner annular section of said spoke attachment portion that forms an inner radial periphery of said rim such that said central axes of said spoke attachment openings extend in a substantially radial direction of said rim.

15. (Original) The bicycle rim according to claim 14, wherein

each of said reinforcement members has a symmetrical shape relative to a center plane of said rim, and

each of said reinforcement members has a symmetrical shape relative to a center radial plane thereof that is perpendicular to said center plane.

16. (Previously Presented) The bicycle rim according to claim 14, wherein each of said reinforcement members has a maximum overall circumferential dimension at least as large as a maximum overall axial dimension thereof.

17. (Previously Presented) The bicycle rim according to claim 14, wherein each of said reinforcement members has a base portion with a first thickness and said projecting portion extends radially inwardly from said base portion such that said projecting portion has a second thickness that is at least twice said first thickness, and

said through opening of each reinforcement member is formed in said projecting portion.

18. (Original) The bicycle rim according to claim 17, wherein

said base portion of each of said reinforcement members includes a tapered section extending around an outer periphery thereof.

19. (Previously Presented) The bicycle rim according to claim 14, wherein each of said through openings is substantially coincident with a respective one of said spoke attachment openings as viewed along said central axes of said spoke attachment openings.

20. (Original) The bicycle rim according to claim 14, wherein

each of said reinforcement members has a maximum overlapping dimension that overlaps said annular spoke attachment portion that is at least as large as a maximum transverse dimension of a respective one of said attachment openings as measured from an

outer peripheral edge of said reinforcement member to said respective one of said attachment openings.

21. (Original) The bicycle rim according to claim 1, wherein

said spoke attachment portion of said rim has a substantially uniform radial thickness in an annular area where said reinforcement members are fixed.

22. (Original) The bicycle rim according to claim 1, wherein

said spoke attachment portion and said tire attachment portion are integrally formed together as a one-piece, unitary member that is separate from said reinforcement members.

23. (Previously Presented) A method of making a bicycle rim, comprising:

forming an annular rim that includes an annular tire attachment portion and an annular spoke attachment portion fixedly coupled with the annular tire attachment portion to form an annular hollow area;

fixedly coupling a plurality of reinforcement members to an exterior surface of the spoke attachment portion such that the reinforcement members are located entirely exteriorly of the spoke attachment portion in a circumferentially spaced arrangement to effectively increase the thickness of the spoke attachment portion; and

forming a plurality of attachment openings with one of the attachment openings extending through one of the reinforcement members and through the spoke attachment portion of the rim, each of the attachment openings having an inner diameter that is configured and arranged to allow a spoke to be adjustably and releasably coupled thereto,

each of said reinforcement members including:

a projecting portion extending inwardly from one of said attachment openings in a radial direction of the rim to an end surface spaced radially inwardly of said exterior surface of said spoke attachment portion, and

a rim facing surface overlying an attachment area of said exterior surface of said spoke attachment portion that surrounds a corresponding one of said attachment openings,

said attachment areas of said exterior surface of said spoke attachment portion being free of any through openings except for said spoke attachment openings.

24. (Previously Presented) The method according to claim 23, wherein the forming of the attachment openings occurs after fixedly coupling the reinforcement members to the spoke attachment portion.

25. (Original) The method according to claim 23, further comprising forming internal threads in the attachment openings.

26. (Original) The method according to claim 23, wherein the fixedly coupling of the reinforcement members to the annular spoke attachment portion is achieved by welding.

27. (Original) The method according to claim 23, wherein the fixedly coupling of the reinforcement members to the annular spoke attachment portion is achieved by brazing.

28. (Original) The method according to claim 23, wherein

the forming of the annular rim includes forming the spoke attachment portion with a pair of annular side sections extending radially outward from an inner annular section to form a first substantially U-shaped cross-sectional shape as viewed in a transverse cross-sectional direction, and

the forming of the annular rim includes forming the tire attachment portion with a pair of annular tire support sections and an annular bridge section that extends between the tire support sections to form a second substantially U-shaped cross-sectional shape as viewed in the transverse cross-sectional direction.

29. (Original) The method according to claim 28, wherein

the annular side sections and the inner annular section of the spoke attachment portion, and the annular tire support sections and the annular bridge section of the tire attachment portion are integrally formed together as a one-piece, unitary member during the forming of the annular rim.

30. (Original) The method according to claim 28, wherein

the plurality of attachment openings are formed in the inner annular section of the spoke attachment portion.

31. (Original) The method according to claim 30, further comprising

forming internal threads in the attachment openings.

32. (Original) The method according to claim 31, further comprising

forming a single valve aperture in the annular bridge section without forming

any other openings in the annular bridge section; and

forming a single valve opening in the spoke attachment portion that is aligned with the single valve aperture of the annular bridge section.

33. (Withdrawn) The method according to claim 30, further comprising

forming a plurality of circumferentially spaced access openings in the annular bridge section that are configured to be substantially aligned in a radial direction with the plurality of attachment openings.

34. (Previously Presented) A bicycle rim comprising:

an annular tire attachment portion adapted to have a tire mounted thereon;

an annular spoke attachment portion fixedly coupled with said tire attachment portion to form an annular hollow area, said spoke attachment portion including a plurality of circumferentially spaced spoke attachment openings with each of said spoke attachment openings having a central axis; and

a plurality of separate reinforcement members fixedly coupled to an exterior surface of said spoke attachment portion at said spoke attachment openings to effectively increase the thickness of said spoke attachment portion of said rim at said spoke attachment openings, each of said reinforcement members being located entirely exteriorly of said spoke attachment portion and having a through opening that is aligned with one of said spoke attachment openings, said through opening having an inner diameter that is configured and arranged to allow a spoke to be adjustably and releasably coupled thereto,

each of said reinforcement members having a base portion with a first thickness and a central projecting portion extending radially inwardly from said base portion, said projecting portion having a second thickness that is at least twice said first thickness,

said through opening of each reinforcement member being formed in said projecting portion, and

said spoke attachment openings being formed in an inner annular section of said spoke attachment portion that forms an inner radial periphery of said rim such that said central axes of said spoke attachment openings extend in a substantially radial direction of said rim.

35. (Previously Presented) The bicycle rim according to claim 34, wherein said base portion of each of said reinforcement members includes a tapered section extending around an outer periphery thereof.

B- Evidence Appendix

Appellants have included two definitions of the word "felly" in this appendix. The evidence is intended to show that it is well known that the word "felly" refers to a wooden rim. These definitions were obtained at the internet addresses http://www.brainydictionary.com/words/fe/felly164213.html and http://encarta.msn.com/encnet/features/dictionary/Print.aspx?refid=1861610919&search=felly on September 24, 2004.

These definitions were submitted in the September 7, 2005 response under 37 C.F.R. §1.116, which is believed to be entered according to the Advisory Action of September 30, 2005.

C- Related Proceeding Appendix

Since Appellants are not aware of any appeals or interferences relating to the above-identified patent application, there are no decisions rendered by a court or the Board that are believed to be required to be submitted herewith.